REMARKS

Claims 1-24 are now pending in the application. Claims 1, 6, 7, 9, 13, and 19 are herein amended. Claim 5 is herein canceled. Claims 25-30 are newly added. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

Applicants would like to thank the Examiner for courtesy extended during the interview on November 16, 2006. In light of the Examiner Interview and as best understood by Applicants' representative, the above amendments distinguish over the prior art of record subject to further consideration and/or search.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-9, 12-21, and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ward (U.S. Pat. No. 6,754,170) and Ho et al. (U.S. Pat. No. 6,950,397) in further view of Sorrells et al. (U.S. Pat. No. 7,054,296). This rejection is respectfully traversed.

With respect to Claim 1, the stated references fail to show, teach or suggest specifying a first data field in a header that indicates an advanced signal processing mode. The stated references also fail to show, teach or suggest specifying a second data field in a header that defines a data time period and the extension time period, said extension time period associated with dummy data transmission.

As discussed in the Examiner Interview and as best understood by Applicants, IEEE 802.11a provides communication standards, which include an orthogonal frequency division multiplexing (OFDM) physical layer convergence procedure (PLCP)

sublayer. The sublayer has a PLCP protocol data unit (PPDU) with a header and data field. The data field is made up of OFDM symbols, with a physical sublayer service data units (PSDU), and tail bits, as well as pad bits when necessary. The header includes a length field, which provides the length of the PSDU. The tail bits are used to assure that the associated convolutional encoder returns to a zero state. The pad bits are used when necessary to assure that the data field is of a proper overall length. The pad bits assure that the data field contains a number of bits that is equal a specific multiple of bits that are in an OFDM symbol.

The claimed invention as recited in Claim 1 is associated with the reception of data in a data field, such as that above-mentioned, and the processing of that data prior to and during a short interframe space (SIFS) period. According to IEEE 802.11, the SIFS period must not vary from the defined nominal SIFS time value by more than 10% of a slot time. The claimed invention in indicating an advanced processing mode and in providing a header that defines a data time period and an extension time period allows for advanced signal processing without increasing the SIFS period. The extension time period is associated with dummy data transmission. Advanced signal processing may be performed on the data within the data field during the extension time period and thus during the reception of the dummy data.

The Office Action relies on Ward for disclosing a header that has a field, which enables advanced signal processing. Accordingly, the Office Action refers to the signal field of Ward. Applicants submit that the signal field does not enable or indicate advanced signal processing, but rather provides transmission rate and length of a PSDU. The Office Action states that the signal field is convolutional encoded. The

encoding of the header does not indicate an advanced signal processing mode or advanced signal processing by a receiver of that header.

The Office Action further states that Ward and Ho fail to disclose a second data field that defines a data time period and an extension time period. However, the Office Action states that Sorrells discloses such a limitation and refers to the length field that indicates the length necessary to transmit the PSDU and a bit-7 of a service field. Applicants submit, as discussed in the Examiner Interview, that both the length field and the bit-7 are only used to calculate the duration of the PSDU. This is stated in col. 120, lines 17-20 of Sorrells. The length field and bit-7 are not associated with an extension time period that is provided in addition to a data time period. The bit-7 allows for increased advanced signal processing time, as described above. Note that FIG. 139 of Sorrells and FIG. 3A of Ward are similar or the same as that provided in 802.11. For a better understanding of the extension time period claimed and the transmission of dummy data see FIG. 13 of the present application and associated description.

It is a longstanding rule that to establish a prima facie case of obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. ***In re Royka***, 180 USPQ 143 (CCPA 1974), see **MPEP §2143.03**. Here, the Examiner fails to provide **any** reference or references to support a finding that indicating an advanced signal processing mode and defining an extension time period associated with dummy data is obvious.

It is improper to use the inventor's disclosure as an instruction book on how to reconstruct the prior art. ***Panduit Corp. v. Dennison Mfg. Co.***, 1 USPQ2d 1593 (Fed. Cir. 1987). Both the suggestion and the expectation of success must be founded in the

prior art and not in Applicants' disclosure. ***In re Farrell***, 7 USPQ2d 1673 (Fed. Cir. 1988).

With respect to Claim 13, the stated references fail to show, teach or suggest providing a second WLAN transceiver with advanced signal processing capabilities, wherein a maximum interframe period between data and an acknowledgement is required for compatibility, and wherein a duration of said interframe period is shorter than a duration that is required to perform an advanced signal processing mode. The stated references also fail to show, teach or suggest specifying a first data field in a header that indicates an advanced signal processing mode and specifying a second data field in the header that defines a data time period and an extension time period.

The Office Action states that Ward fails to disclose advanced signal processing in a WLAN that requires an interframe period between data and acknowledgement for compatibility, wherein said duration of said interframe period is shorter than a duration that is required to perform said advanced signal processing. The Office Action states that Ho provides such teaching and refers to Fig. 10, elements SIFS, B; col. 21, lines 29-47 of Ho. Applicants, respectfully, traverse.

As best understood by Applicants, Ho discloses a contention free period that begins at a target beacon transmission time. A SIFS period is shown in FIG. 10 of Ho, after which an acknowledgement is made. Column 21, lines 29-47, of Ho states that the SIFS is defined by 802.11 and refers to channel access mechanisms. The stated section does not disclose or address signal processing that is performed during the SIFS period nor does it mention the processing of data that is received prior to the SIFS period. For that matter, such disclosure cannot be found by Applicants anywhere in Ho.

Applicants further submit that Sorrells also fails to show, teach or suggest the stated limitation.

Furthermore, for the limitations of Claim 13 specifying a first data field in a header that indicates an advanced signal processing mode and specifying a second data field in the header that defines a data time period and an extension time period, see above arguments with respect to Claim 1.

Therefore, Claims 1 and 13 are allowable for at least these reasons. Claims 27 and 30 are allowable for similar reasons as Claims 1 and 13. Claims 2-12, 14-26 and 28-29 ultimately depend from Claims 1, 13 and 27 and are allowable for at least similar reasons.

Applicants respectfully assert that the Examiner has failed to clearly and particularly support his alleged motivation to combine these references using actual evidence as required. According to established mandates of the patent laws, "[t]o establish a prima facie case of obviousness . . . there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." **MPEP §2142.** "There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." **MPEP §2143.01.**

"The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved." ***In re Kotzab***, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000). The showing must be "clear and particular, and it must be

supported by **actual evidence**." ***Teleflex, Inc. v. Ficosa North American Corp.***, 299 F.3d 1313, 1334, 63 U.S.P.Q.2d 1374, 1387 (Fed. Cir. 2002) (quoting *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999)) (emphasis added). It is not sufficient to rely on "common sense and common knowledge," as there must be specific evidence to support the motivation. ***In re Lee***, 277 F.3d. 1338, 1344-45, 61 U.S.P.Q.2d 1430, 1434-35 (Fed. Cir. 2002)]. It is respectfully submitted that the Patent Office has not made a legally sufficient showing of a motivation to combine based on actual, specific, evidence.

Rather, according to **MPEP §2142**, "[t]o reach a proper determination under 35 U.S.C. 103, . . . impermissible hindsight must be avoided and the legal conclusion [of obviousness] must be reached on the basis of the facts gleaned from the prior art." Furthermore, according to **MPEP §2143.01**, "[t]he mere fact that references can be . . . modified does not render the resultant combination obvious unless the prior art also suggests the desirability of [such modification]." ***In re Mills***, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Since the Patent Office has offered no proper support or motivation for combining the references, it is respectfully submitted that the rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from Applicants' disclosure." **MPEP §2145**. Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

Besides, as stated above the combination of the stated references does not show, teach or suggest the claimed invention without several modifications thereof, which can only be gleaned from the present application.

Also, the lack of motivation to modify the references is even stronger, however, given that the Office Action misidentifies or misinterprets the problem addressed by Applicants' claimed features. In particular, a primary advantage of Applicants' claimed features is to provide additional time for advanced signal processing without increasing a short interframe space period. None of the relied upon references speak to this problem or solution. The Office Action not only errs in defining the problem facing the present invention it also errs in terms of its solution. In mistakenly determining the problem, the Office Action, on page 4, incorrectly presumes that the solution to the problem is to provide frequency translation. Defining the problem in terms of its solution reveals improper hindsight in the selection of the prior art relevant to obviousness. See ***Monarch Knitting Machinery v. Sulzer Morat GmbH***, 139 F.3d 877, 881 (Fed. Cir. 1998).

Also, to say that the missing feature, i.e., the extension time period, comes from the nature of the problem to be solved, i.e., increased advanced signal processing without increased short interframe space period, begs the question because the Office Action fails to show that this problem is identified in any of the relied upon references. ***In re Zurko***, 111 F.3d 887, 890 (Fed. Cir. 1997). Thus, although the Office Action purports to recognize the need to identify a suggestion or motivation to modify the prior art, it fails to do so and, indeed, succumbs to the allure of using the claimed invention as a template for modifying the prior art. ***ACS Hosp. Sys., Inc. v. Montefiore Hosp.***, 732 F.2d 1572, 1577 (Fed. Cir. 1984) (It is impermissible to use the patent itself as the source of suggestion). The focus must remain on what the prior art suggested to one of skill in the art, as obviousness cannot be established by combining pieces of prior art

absent some teaching, suggestion or incentive supporting the combination. ***In re Geiger***, 815 F.2d 686, 688 (Fed. Cir. 1987). No valid reason has been set forth that one of ordinary skill in the art would modify the stated references to arrive at the claimed invention.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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